Claims

1. A method for selectively controlling the power consumption of a piezoelectrically powered telemetry unit, the telemetry unit forming part of a tyre monitoring system and having a piezoelectric power generator including a storage device for storing charge generated by the piezoelectric power generator, the unit further including a microprocessor, a data measurement circuit, and a data transmission circuit, in which the method incorporates a power consumption protocol for regulating the consumption of power from the piezoelectric power generator, including the successive steps of: initiating power from the piezoelectric generator to the data measurement circuit for measuring data from the environment local to the unit; disabling said power to the data measurement circuit; initiating power from the piezoelectric power generator to the data transmission circuit; transmitting the measured data; and disabling said power to the transmission circuit;

wherein the protocol further includes a sleep mode, the length of which is varied in dependence on the amount of charge stored in the storage device, or upon the rate at which electric charge is generated by the generator.

2. A method as claimed in claim 1, in which the protocol is cyclic, so that the first protocol step of power being initiated from the piezoelectric generator to the data measurement circuit is carried out after each transmission of measured data.

3. A method as claimed in claim 1 or 2, in which the measured data is stored in the microprocessor before disabling power to the data measurement circuit.

4. A method as claimed in claim 1, 2 or 3, in which the protocol initialises power to the data measurement circuit after a predetermined time from the disabling of power to the transmission circuit.

5. A method as claimed in claim 4, in which the microprocessor monitors the time from the

disabling of power to the transmission circuit.

6. A method as claimed in claim 5, in which the microprocessor monitors the time from the disabling of power to the transmission circuit via an externally referenced clock.

7. A method as claimed in claim 6, in which the microprocessor switches from the externally referenced clock to an internal clock, after the predetermined time.

8. A method as claimed in claim 7, when dependent upon claim 5, in which the microprocessor switches to the externally referenced clock after the measured data has been stored.

9. A method as claimed in any preceding claim, in which a predetermined time is allowed to elapse between initialising power to the data measurement circuit and the measurement of data.

10. A method as claimed in any preceding claim, in which a predetermined time is allowed to elapse between initialising power to the data transmission circuit and transmission of the measured data.